two opposed control surfaces projecting outwardly form the body, each control surface being rotatable about an axis which extends transversely of the streamer; and

control means responsive to control signals and the sensor means for independently adjusting the respective angular positions of said two control surfaces so as to control the lateral position of the streamer as well as its depth.

Please enter the following new claims:

2 ~~14.~~ The control device of claim 1, wherein the marine seismic streamer is a multi-section streamer that includes an electric power line, the control device further comprising an electrical connection means capable of connecting to the electric power line, wherein the control means is at least partly electrical and arranged in use to receive electrical power from the electric power line.

3 ~~15.~~ The control device of claim 1, wherein the marine seismic streamer includes a control line, the control device further comprising a control line connection, wherein the control means is arranged in use to receive control signals from the control line.

4 ~~16.~~ The control device of claim 1, wherein the two control surfaces are releasably secured to the body.

5 ~~17.~~ The control device of claim 1, wherein the two control surfaces are secured to the body by quick-release attachments.

6 ~~18.~~ The control device of claim 5 ~~17~~, wherein the body is adapted to be wound onto a streamer drum while still connected to the steamer.

7 ~~19.~~ The control device of claim 1, wherein the body is at least partly flexible.

8
~~20.~~ The control device of claim 1, wherein the body is of approximately the same diameter as the streamer.

9
~~21.~~ The control device of claim 1, wherein the control means includes at least one electrical motor.

10
~~22.~~ The control device of claim 1, wherein the control means includes at least one hydraulic actuator.

11
~~23.~~ The control device of claim 1, wherein the control means includes means for sensing the angular position of each of the two control surfaces.

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12
~~24.~~ The control device of claim 1, wherein the two control surfaces rotate about a common axis.

13
~~25.~~ The control device of claim 1, wherein each of the two control surfaces comprises a respective wing-like member that is swept back with respect to the direction of tow of the streamer.

14
~~26.~~ The control device of claim 1, wherein the body is adapted to be non-rotatably coupled to the streamer.

15
~~27.~~ The control device of claim 1, wherein the central section is constructed of material selected from aluminum, titanium, and combinations thereof.

16
~~28.~~ The control device of claim 1, wherein the one or more elongate sections providing length for inclusion of one or more hydrophones.

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29. The control device of claim 1, wherein the control means further comprises:

a control circuit in communication with means for determining a depth of the control device, means for determining a lateral position of the control device, and means for determining a roll angle.

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30. The control device of claim 29, wherein the control circuit is microprocessor-based.

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31. The control device of claim 29, wherein the control circuit comprises at least two control outputs, each control output being connected to respective means to independently adjust the angular positions of each of the control surfaces.

32. A method for controlling the position of a marine seismic streamer, comprising:

independently adjusting the angular position of each of two control surfaces on a control device to achieve a desired depth of the control device, wherein the control device is attached to the seismic streamer.

33. The method of claim 32, further comprising:

independently adjusting each of the two control surfaces on the control device to achieve a desired lateral position of the control device.

34. The method of claim 32, further comprising:

determining a depth of the control devices; and

determining a lateral position of the control devices.

35. The method of claim 32, wherein the step of independently adjusting each of the two control surfaces of the control device to achieve a desired depth further comprises:

determining the depth of the control device;

comparing the depth of the control device to the desired depth of the control device; and

independently rotating the control surfaces of the control device, wherein rotating the position of the control surfaces changes the lift provided by the control surfaces moving in water.

36. The method of claim 33, wherein the step of independently adjusting each of the two control surfaces of the control device to achieve a desired lateral position further comprises:

determining the lateral position of the control device;

comparing the lateral position of the control device to the desired lateral position of the control device;

independently rotating the control surfaces of the control device, wherein independently rotating the position of the control surfaces changes the lateral forces against the control surfaces moving in water.

37. The method of claim 32, wherein the control surfaces are attached to opposite sides of the control device.

38. The method of claim 32, wherein the control surfaces are attached to the control device with quick-release attachments.

39. The method of claim 32, further comprising:

receiving electrical power by the control device from an electrical connection to an electrical power line included with the seismic streamer.

40. The method of claim 32, further comprising:

receiving control signals by the control device through a control connection to a control cable included with the seismic streamer.

41. The method of claim 32, wherein the two control surfaces rotate about a common axis.

42. A method for controlling the position of a marine seismic streamer, comprising:

independently adjusting each of two control surfaces on a control device to achieve a desired lateral position of the control device, wherein the control device is attached to the seismic streamer.

43. The method of claim 42, further comprising:

independently adjusting each of the two control surfaces on the control device to achieve a desired depth of the seismic streamer.

44. The method of claim 42, further comprising:

determining a depth of the control device; and

determining a lateral position of the control device.

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45. The method of claim 43, wherein the step of independently adjusting each of the two control surfaces of the control device to achieve a desired depth further comprises:

determining the depth of the control device;

comparing the depth of the control device to the desired depth of the control device;

independently rotating the control surfaces of the control device, wherein independently rotating the position of the control surfaces changes the lift provided by the control surfaces moving in water.

46. The method of claim 42, wherein the step of independently adjusting each of the two control surfaces of the control device to achieve a desired lateral position further comprises:

determining the lateral position of the control device;

comparing the lateral position of the control device to the desired lateral position of the control device; and

independently rotating the control surfaces of the control device, wherein independently rotating the position of the control surfaces changes the lateral forces against the control surfaces moving in water.

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47. The method of claim 42, wherein the control surfaces are attached to opposite sides of the control device.

48. The method of claim 42, wherein the control surfaces are attached to the control device with quick-release attachments.

49. The method of claim 42, further comprising:

receiving electrical power by the control device from an electrical connection to an electrical power line included with the seismic streamer.

50. The method of claim 42, further comprising:

receiving control signals by the control device through a control connection to a control cable included with the seismic streamer.

51. A method for storing a marine seismic streamer on a drum, wherein the body of a control device is attached to the streamer, the method comprising:

winding the streamer onto the drum;

removing control surfaces from the control device, wherein the control surfaces are attached to the body with quick-release attachments.

52. A control device for controlling the position of a marine seismic streamer, the device comprising:

a body mechanically adapted to be coupled to the streamer;

two opposed control surfaces projecting outwardly form the body, each control surface being rotatable about an axis which extends transversely of the streamer; and

control means responsive to control signals for independently adjusting the respective angular positions of said two control surfaces so as to control the lateral position of the streamer as well as its depth.

53. The control device of claim 52, further comprising:

sensor means in the body for determining the angular position of the body in a plane approximately perpendicular to the longitudinal axis of the streamer, wherein the control means is responsive to the sensor means.

22 ~~54.~~ The control device of claim 20 ~~52~~, wherein the two control surfaces are releasably secured to the body.

23 ~~55.~~ The control device of claim 20 ~~52~~, wherein the two control surfaces are secured to the body by quick-release attachments.

24 ~~56.~~ The control device of claim 23 ~~55~~, wherein the body is adapted to be wound onto a streamer drum while still connected to the steamer.

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25 ~~57.~~ The control device of claim 20 ~~52~~, wherein the control means includes at least one electrical motor.

26 ~~58.~~ The control device of claim 20 ~~52~~, wherein the control means includes at least one hydraulic actuator.

27 ~~59.~~ The control device of claim 20 ~~52~~, wherein the two control surfaces rotate about a common axis.

28 ~~60.~~ The control device of claim 20 ~~52~~, wherein each of the two control surfaces comprises a respective wing-like member that is swept back with respect to the direction of tow of the streamer.

29 ~~61.~~ The control device of claim 20 ~~52~~, wherein the body is adapted to be non-rotatably coupled to the streamer.

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